

# Pacific Northwest National Laboratory Environmental Management Performance Report

**January 2001**

**PREPARED FOR THE U.S. DEPARTMENT OF ENERGY, RICHLAND OPERATIONS OFFICE  
OFFICE OF ENVIRONMENTAL MANAGEMENT**

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**Pacific Northwest National Laboratory  
Operated for the U.S. Department of Energy  
by Battelle Memorial Institute**



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***Introduction***

This document provides the Department of Energy Richland Operations Office (DOE-RL) with a report of the Pacific Northwest National Laboratory (PNNL) performance by Battelle Memorial Institute and its subcontractors.

In Section A, the Executive Summary, text and graphics report the safety metrics status for all PNNL activities. Senior management's overall performance assessment of all Environmental Management activities conducted at PNNL is presented in a stoplight chart.

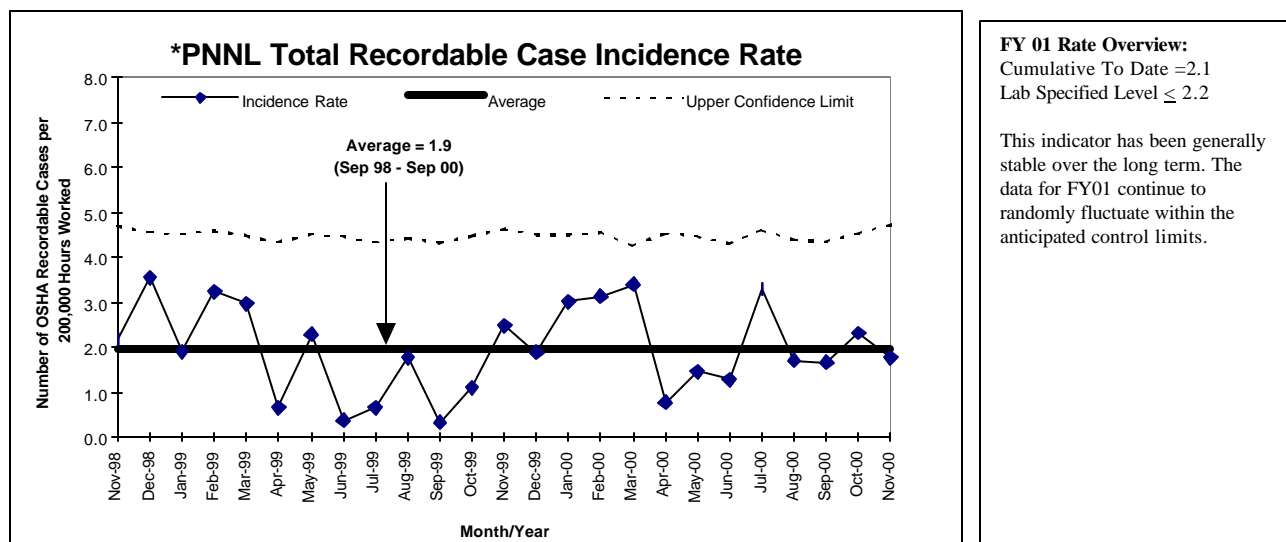
Section B, Project Performance Summary, provides a brief summary of the month's performance for the PNNL lead activity, PNNL Waste Management (PBS RL-ST01). More detailed information can be found within PNNL-7911-110a, PNNL's Project Status Report for November 2000. Summary analyses pertaining to PNNL's support to other Project Baseline Summaries (PBSs) are addressed in the contractor's report having lead responsibility for that scope.

Unless otherwise noted, information in this report is current as of November 26, 2000.

This section provides an executive-level summary of performance information and is intended to bring to management's attention that information considered to be most noteworthy. The section begins with overview of safety, a summary of FY 2001 performance, a summary of Fiscal Year (FY) 2001 Voluntary Protection Program (VPP) activities, followed by a stoplight chart on overall performance.

## Safety Overview

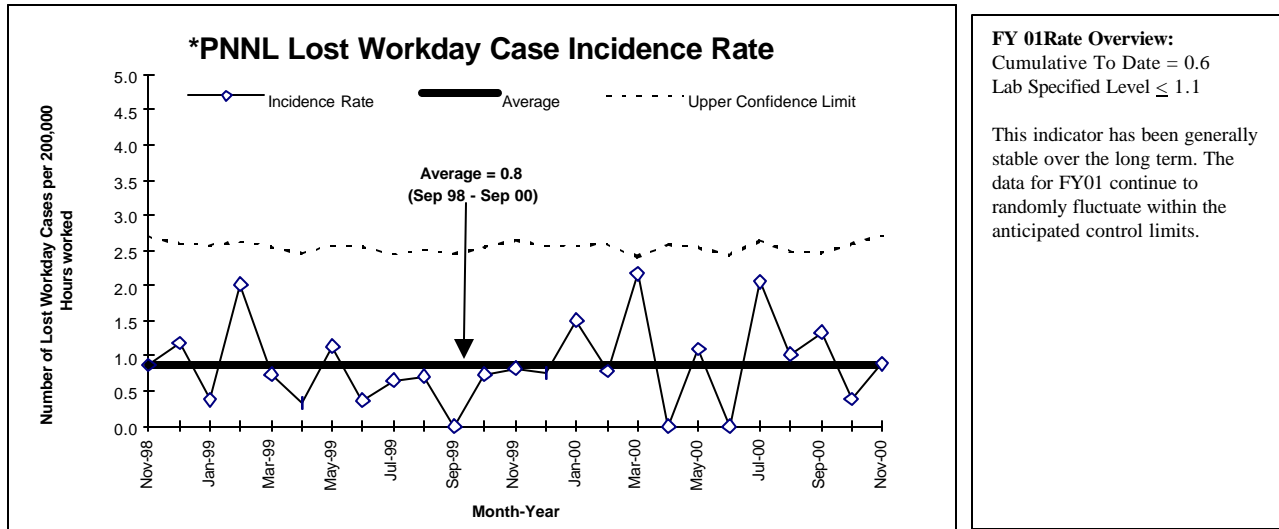
The focus of this section is on documenting trends in work-related injury and illness rates. These are the same performance indicators as appear in the FY2001 Battelle Performance Evaluation and Fee Agreement, which is part of the Pacific Northwest National Laboratory operations Contract. The monthly rates for Recordable and Lost Workday cases are presented graphically in this section and are monitored for statistically significant changes. Current efforts to improve performance are being made through the continued implementation of the Integrated Safety Management System (ISMS), and the development and implementation of the Voluntary Protection Program (VPP).



Green

\*Includes all Pacific Northwest National Laboratory Operations.

**PNNL Environmental Management Performance Report – January 2001**  
**Section A - Executive Summary**



Green

\*Includes all Pacific Northwest National Laboratory Operations.

## Cost/Schedule Performance Stoplight

The following rating reflects overall cost and schedule performance for activities conducted by PNNL.  
*(Narrative not required when rating is green.)*

Green

Green: Satisfactory  
 Yellow: Significant improvement required  
 Red: Unsatisfactory

This section provides cost and schedule performance, any significant issues, and upcoming baseline change requests for the period covered. In FY 2001, Battelle Memorial Institute has lead responsibility over PBS RL-ST01, PNNL Waste Management WBS 1.7.1.

## Mission

WBS 1.7.1 provides PNNL with waste management services and compliant operations in support of science and technology development for the multiprogram needs of the U.S. Department of Energy (DOE) Complex. These services include:

- essential surveillance and maintenance of DOE laboratory facilities assigned to PNNL for safe containment of radioactive and hazardous materials
- infrastructure required to manage wastes and effluents currently generated at the PNNL
- operational compliance services to meet regulatory requirements and operating permits including environment, safety, and health regulations
- management of legacy wastes and contamination remaining from past PNNL research operations.

## Activity Summary

The following summarizes the activities associated with PNNL Waste Management services and operations conducted during November 2000.

- Scheduled Radiochemical Processing Laboratory (RPL) radiological surveys and nuclear control inspections were performed. All scheduled inspections were completed on the following facilities: 2718-E, 3745-B, 3731, 3731-A, 303-J, 3762, and 3764. No issues of significance were noted in any of the facilities.
- Scheduled routine waste management activities were performed during the period. All air and water samples required during the month of November were collected, and confirmed that all routine effluent discharges from Pacific Northwest operations reported to date are below historical release levels and compliant with existing state and federal permits.
- Fifty-four National Environmental Protection Act (NEPA) reviews were completed on experimental projects within the Laboratory to ensure that the associated project scope will not have potential to create environmental risks.
- All legacy waste associated with the High-Dose Waste Disposal Task was transferred from the RPL Shielded Analytical Lab (SAL) to the High Level Radiochemistry Facility (HLRF). The load-out procedure and associated training plan were completed. A significant amount of cleanup occurred within the RPL Room 604 glovebox including cleanup of equipment and most of the debris on the floor of the glovebox.

## Performance Data and Analysis

As of November 26, 2000 the cumulative costs are \$1.7 million with a negative cost variance of \$0.06M and a cumulative schedule variance of negative \$0.3M. The cost variance is within the 10 % reporting threshold. A brief explanation for the variances will be described following the tables and chart.

<b>Cost Performance (\$M):</b>			
	<b>BCWP</b>	<b>ACWP</b>	<b>Variance</b>
<b>PNNL Waste Management</b>	\$1.6	\$1.7	(\$0.1)
<b>Schedule Performance (\$M):</b>			
	<b>BCWP</b>	<b>BCWS</b>	<b>Variance</b>
<b>PNNL Waste Management</b>	\$1.6	\$1.9	(\$0.3)

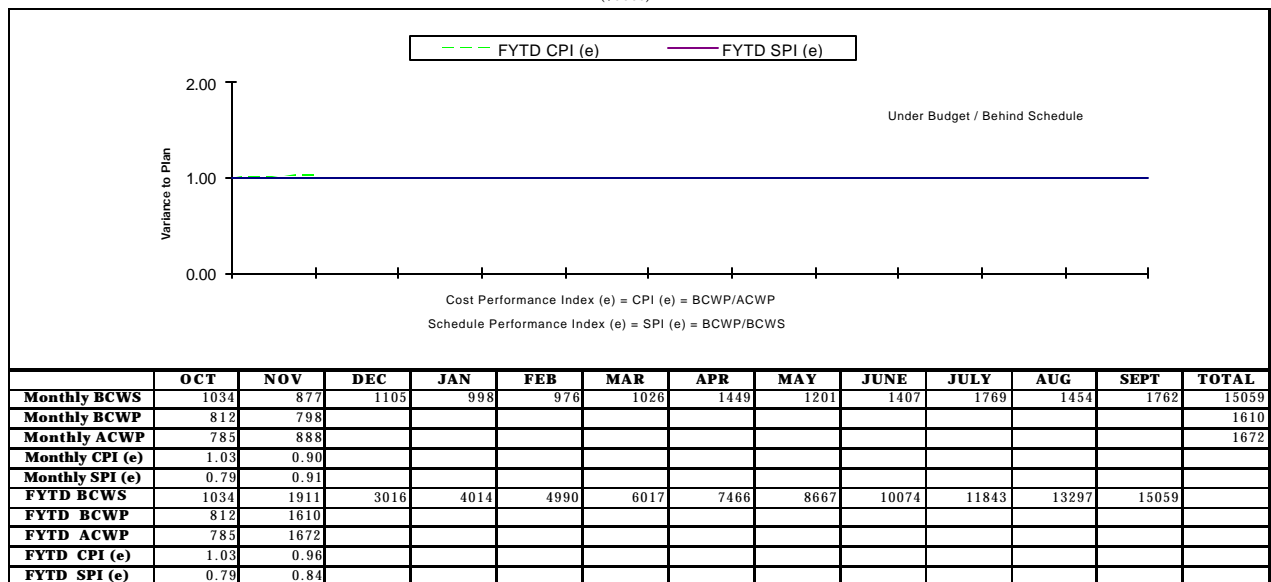
### **FY 2001 Cost/Schedule Performance - All Fund Types** **Cumulative to Date Status - (\$000)**

<b>WBS</b>	<b>PBS</b>	<b>BCWS</b>	<b>BCWP</b>	<b>ACWP</b>	<b>CV</b>	<b>%</b>	<b>SV</b>	<b>%</b>
1.7.1	RL-ST01	<u>\$1,911</u>	<u>\$1,610</u>	<u>\$1,672*</u>	<u>(\$62)</u>	<u>-4</u>	<u>(\$301)</u>	<u>-16</u>
<b>Total</b>		\$1,911	\$1,610	\$1,672*	(\$62)	-4	(\$301)	-16

\* Numbers reflect PNNL system; per DISCAS actuals, including \$ expended by Fluor for S&M of 242B/BL, are only \$1,656.2K

### **Cost / Schedule Performance Indices**

FY 2001 Cum to Date Status  
(\$000s)





The negative cost variance of \$0.06M primarily results from completing FY 2000 scope offset by delayed billings. In addition, FY 2001 rates have been finalized and are higher than anticipated during the planning process. The impacts of the cost increase will be incorporated in the same baseline change request that is including carryover activities.

The schedule variance for November, of negative \$0.3M, is above the 10% threshold. The primary activities making up the negative schedule variance are as follows:

- Delays have been encountered within the Program awaiting resolution of FY 2001 funding allocations. Resolution on funding was received following the November Site Management Board meeting. Some activities needed to be deleted or deferred and revisions to scheduled activities associated with funding allocations will be included in upcoming baseline change request.
- Delays have been encountered with procurement of High Dose Solid Waste shielded drums. As a result of this delay the drum shipping dates for the 73 cans of transuranic (TRU)/low-level waste (LLW) is expected to occur within the first quarter of FY 2001. Concerted efforts are being made to streamline the fabrication process and set priorities for which type of drums need to be available first.
- Delays have been encountered in design and engineering efforts for the heating, ventilation, and air conditioning (HVAC) controls upgrade/replacement within the Radiochemical Processing Laboratory (RPL). Resources are reviewing proposal for combined HVAC controls and switchgear replacement within the facility.
- The integrity assessment of the radioactive liquid waste tank (RLWT)-piping is currently on hold with no defined completion date. The integrity assessment and associated waste processing continues to be delayed because the 204-AR Facility (receiver facility) is not ready, and Pacific Northwest does not want to add any liquids to the tank to make it a radiologically controlled tank until the receiver facility is ready.